CLAIMS

1. A MOS-type power component in which active regions extend perpendicularly to a surface of a semiconductor chip substantially across an entire thickness thereof.

2. The component of claim 1, wherein the contacts with the regions to be connected are taken by conductive fingers substantially crossing the entire region with which a contact is desired to be established.

3. The component of claim 2, wherein the conductive fingers are metal fingers.

4. The component of claim 1, wherein the junctions or limits between regions are arranged in planes perpendicular to the main chip surfaces.

5. The component of claim 1, wherein the junctions or limits between regions are formed of several cylinders perpendicular to the main chip surfaces.

6. The MOS power transistor of claim 1, alternately comprising a source region of a first conductivity type, an intermediary region, and a drain region of the first conductivity type, each of these regions extending across the entire thickness of the substrate, the source and drain regions being contacted by conductive fingers or plates substantially crossing the substrate, insulated and spaced apart conductive fingers crossing from top to bottom the intermediary region, the horizontal distance between the insulated fingers being such that the intermediary region can be inverted when an appropriate voltage is applied to these insulated fingers.

7. The MOS power transistor of claim 6, wherein the conductive fingers penetrating into lightly-doped N-type regions are surrounded with heavily-doped N-type regions.

8. An IGBT transistor according to claim 1, alternately comprising a source

region of a first conductivity type, an intermediary region, a drain region of the first conductivity type, and an additional region of the second conductivity type, each of these regions extending across the entire substrate thickness, the source region and the additional region being contacted by conductive fingers or plates substantially crossing the substrate, insulated and spaced apart conductive fingers crossing from top to bottom the intermediary region, the horizontal region between the insulated fingers being such that the intermediary region can be inverted when an appropriate voltage is applied to these insulated fingers.

9. The MOS power or IGBT transistor of claim 6, wherein each of the conductive fingers is respectively connected to a source metallization, to a gate metallization, and to a drain metallization.

10. The MOS power or IGBT transistor of claim 6, wherein localized metallizations extend vertically between the source region and the intermediary region to form localized short-circuits.

11. The MOS power or IGBT transistor of claim 6, wherein the insulated and spaced apart conductive fingers are formed from conductive fingers crossing the entire thickness of the chip, the walls of which are oxidized and which are filled with doped polysilicon.

12. The MOS power or IGBT transistor of claim 8, wherein each of the conductive fingers is respectively connected to a source metallization, to a gate metallization, and to a drain metallization.

13. The MOS power or IGBT transistor of claim 8, wherein localized metallizations extend vertically between the source region and the intermediary region to form localized short-circuits.

14. The MOS power or IGBT transistor of claim 8, wherein the insulated and spaced apart conductive fingers are formed from conductive fingers crossing the entire

thickness of the chip, the walls of which are oxidized and which are filled with doped polysilicon.